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To provide better educational opportunities for a select group of students, the San Rafael Program for More Able Learners was established. Among its goals were problem-solving facility, creativity, respect for learning, and self-understanding. The goals also included knowledge of facts, ideas, and concepts, social skills, sensitivities and feelings, values and attitudes, and academic skills.

Identification of the student should include 98th percentile on group mental ability tests. Types of programs used were regular classroom enrichment, advanced placement, and special classes. The areas studied in the curriculum were social sciences, language, sciences, fine arts, and abstract sciences. Special events such as speakers, and unique field trips, were included.

The 1963-64 report differed from previous ones in its inclusion of extensive evaluation of the program. Those who evaluated were pupils, parents, teachers and administrators. Measures of evaluation included standardized achievement tests, rating scales, interviews, anecdotal records, work samples, questionnaires, and case history folders. Evaluation showed that the participants accomplished more than if there was no program, that parents claimed the program is beneficial to their children, and that teachers were enthusiastic about it. Also the majority of students wanted to participate in special activities. The program tends to upgrade the total school program for all children.

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PROGRAM FOR MORE ABLE LEARNERS

FIFTH ANNUAL REPORT
1963-64

SAN RAFAEL CITY SCHOOLS
San Rafael, California

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San Rafael City Schools

San Rafael, California

DESCRIPTION OF THE SAN RAFAEL PROGRAM FOR MORE ABLE LEARNERS AS PRESCRIBED IN THE CALIFORNIA ADMINISTRATIVE CODE, ARTICLE 23, SPECIALLY EDUCATIONAL PROGRAMS FOR MENTALLY GIFTED MINORS

FIFTH ANNUAL REPORT

1963-64

Written by Robert E. Shore

Coordinator for More Able Learners

San Rafael City Schools

San Rafael, California

June 1964

San Rafael Board of Education

C. Paul Bettini
John M. Bagshaw
Bella H. Aaron
Carl J. Brown
Walter J. Doll

Dr. Bert C. Corona, Superintendent

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INTRODUCTION

> ... education, whose main function it should be to enable the human being to live as full a life as possible, should have as its chief objective so to train all human capacities in their mutual relationship as to produce not a fractional (person) but a whole (person).
>
> Mordecai M. Kaplan
> Jewish Theological Seminary
> of America
> in Goals for American Education
> A Symposium

The above lines in essence echo the further development of the San Rafael Program for More Able Learners in 1963-64. An enlargement of this thought is seen in another remark by Dr. Kaplan:

> Man, viewed transcendentally, is man in the context of the cosmos, as the stage with its properties so set as to enable him to play the roll of being with an insatiable hunger for maximum life.

This year teachers, parents, and administrators have been attempting to provide a "stage with its properties so set" as to enable MAL's to achieve gains in the human capacities described in the goals of the MAL Program.

The program in grades four to eight recorded in this report, and the unrecorded program in the kindergartens and grades one to three, represent the third year of such efforts in San Rafael. Prior to the last three years district staff members spent three years (1957-60) preparing to launch the San Rafael Program for More Able Learners.

Thus, this report is an account of the 1963-64 special instruction of students who are believed to have the potential ability to profit markedly from an increased opportunity to broaden and extend their school learning. The MAL Program goes beyond the identification of individuals to the creation of an environment in which these individuals can grow in all of their human capacities according to their potential abilities.

PURPOSE and GOALS

Purpose of the Program:

The purpose of the San Rafael Program for More Able Learners is to provide a series of unique and appropriate educational opportunities for a select group of students identified under State of California Provisions as stated in the California Administrative Code, Article 23, Section 199.11, "Specially Educational Programs for Mentally Gifted Minors", Identification of Mentally Gifted Minors. Students are also selected under San Rafael Elementary School District provisions as stated in the San Rafael More Able Learner Program Second Annual Progress Report, pp. 7-24, "Process of Identification".

Goals of the Program:

That MAL's will be able:

1. To exhibit facility in problem-solving which is linked to depth research.
2. To demonstrate a degree of "expertness" which is commensurate with individual potential in uses of talents and abilities.
3. To produce increased evidence of creative and divergent thinking.
4. To exhibit a gain in respect for learning which results from a superior challenge to superior ability.
5. To build a feeling of responsibility which is commensurate with individual ability.
6. To learn to appreciate self from an understanding of self.
7. To gain experience in multiple areas of the arts and sciences.
8. To increase ability to adjust to change; to meet success, failure, threat, discomfort, and hardship with a positive outlook.

Categories of the Goals:

The degree of achievement of the goals as they are stated at the pupil level is an indication of the effectiveness of the implementation of the goals as they are stated at the teacher level and at the district level. The pupil level is the ultimate behavioral level of operation. At all levels the goals are categorized as follows:

1. Academic skills (reading, writing, listening, speaking, etc.)
2. Social skills
3. Values and attitudes
4. Sensitivities and feelings
5. Knowledge of facts, ideas, and concepts

Chart of Contents of MAL Goals as Seen in 1962-63*

Cognitive Area

1.	Ability to solve problems	Subject Matter Competence
2.	Knowledge of subject matter	
3.	Ability to see relationships	
4.	Basic skills	
5.	Research skills	Intellectual Modus Operandi
6.	Critical thinking ability	
7.	Ability to experiment with things and ideas	
8.	Ability to work independently	
9.	Interest in school	Intellectual Stimulus
10.	Motivation toward learning	
11.	Intellectual curiosity	

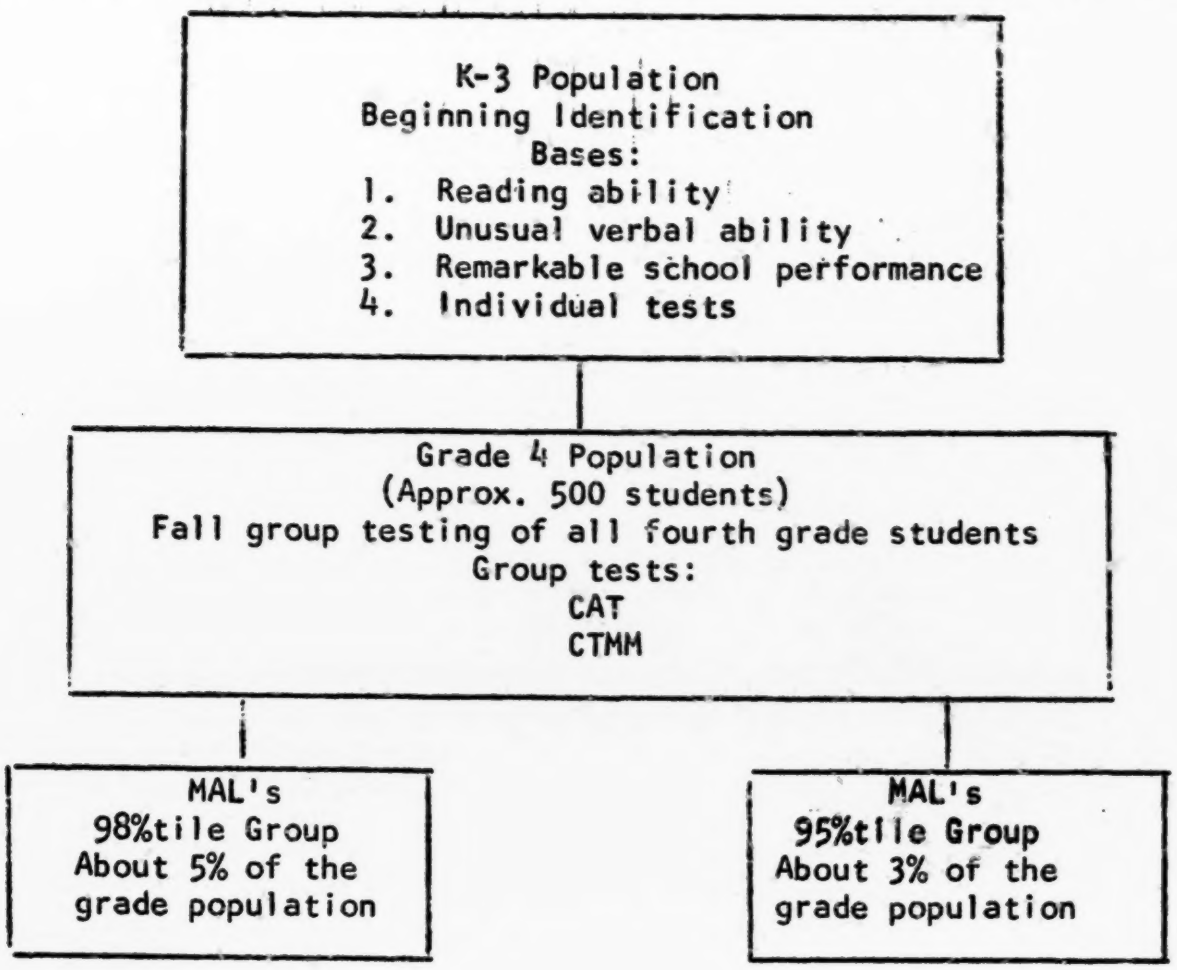
Non-Cognitive Area

12.	Rapport with teacher	Relationship with Teacher
13.	Ability to accept responsibility	
14.	Status in peer group	Interpersonal Relationships
15.	Acceptance of leadership roles	
16.	Self-understanding	Self-Understanding

*Basis for rating scales addressed to students, teachers, and parents in an attempt to measure achievement of goals.

Diagram of the San Rafael Process of Identification

The San Rafael process of identification is a continuous year-round creative effort. Both formal and informal, and standardized and non-standardized means are used in identifying pupils with a potential ability to profit markedly from an increased opportunity to broaden and extend their school learning. The process begins in the kindergarten and continues through grade eight.



In addition:

1. The Guidance Department administers a year-round individual testing program in which MAL eligibles are identified.

2. Newcomers are eligible for MAL Program admission on the basis of recommending transfer information. Transfer records may be used also to admit a student to the list for retesting.

3. Highly divergent and creative individuals are studied to attempt to ascertain their eligibility for the Program. For a time the Paul Torrance Creative Thinking Tests were used extensively. (Correcting the Torrance tests for large groups has posed a problem and summarizing the data has been difficult in the midst of other obligations.)

Identification in grades 5 - 8:

All of the above program is administered to varying degrees in grades 5 - 8.

Some Identification Process Considerations

The Original San Rafael Process of Identification

The original San Rafael process of identification (1960-61) was elaborate and detailed for the purpose of City-wide multi-grade initial screening. A criterion group had to be established, and it was necessary to develop a basic framework (see Second Annual Report, June 1961). Since 1960-61 the identification process in San Rafael has evolved to a modified form of the original plan. Modification criteria have been:

1. How EFFICIENT is the process?
2. How ECONOMICAL is the process?
3. How EFFECTIVE is the process?

One of the major concerns is still the highly divergent creative student --- How shall we find him? How shall we program him?

The Gifted Underachiever:

A concerted effort is made continually to inspire the gifted underachievers (mostly boys). We hope to make greater gains in the future in programming these individuals successfully. We are definitely not without success in this area.

After July 1965:

Beginning July 1, 1965 all gifted minors enrolled in grades K - 6 must be identified with an individual intelligence test, such as the Revised Stanford-Binet Scale, Form L-M. The individual tests must be administered by a person credentialed for this purpose by the State Board of Education.

SAN RAFAEL MULTIPLE APPROACHES

Program Types and the MAL Curriculum

San Rafael, in adopting a multiple approach type program, made it possible for individual schools to organize around individual situations. Of the six program types described in the California Administrative Code, Article 23, the following three types are being administered by the San Rafael Schools:

1. Programs in which pupils remain in their regular classrooms, but participate in additional educational activities planned to suit their special abilities and interests, use advanced materials, and/or receive special help, directly or indirectly, through persons other than the regular classroom teacher.

3. Programs in which pupils are placed in grades or classes more advanced than those of their own chronological age group and receive special instruction outside of the regular classroom in order to assist them in handling the advanced work.

6. Programs in which special classes are organized to provide advanced or enriched work for pupils with superior mental ability during the regular school year or during a summer session. Such special classes may be in single subjects or may include more than one subject. They may be scheduled for a part or all of a school day.

Diversity of program approaches is encouraged and guided with a districtwide "circular curriculum" framework known as the San Rafael Curriculum Wheel. The Wheel, which covers the gamut of the arts and sciences, provides group (teacher-pupil, teacher-Coordinator, etc.) freedom in the MAL-centered curriculum planning. At the same time, the Wheel assures variety and serves as a unifying element in program implementation.

Note: Each program type can have more than one approach. For details on Districtwide elements and local school implementation of program types (i.e., the specific approach at each school in the District) see the June, 1962 Report.

MAL SPECIAL ACTIVITIES
in the
REGULAR CLASSROOM GRADES FOUR to SIX

Means to an End

The recorded activities on the following pages are considered to be appropriate means to achieve MAL goals. The "San Rafael Criteria for MAL Activities" represent the canon of MAL extensions and special opportunities. These extensions and special opportunities come about in three ways:

1. As specific MAL units (for MAL's only)
2. As high level extensions of regular class units or activities
3. As special activities in connection with a science fair, art show, etc.

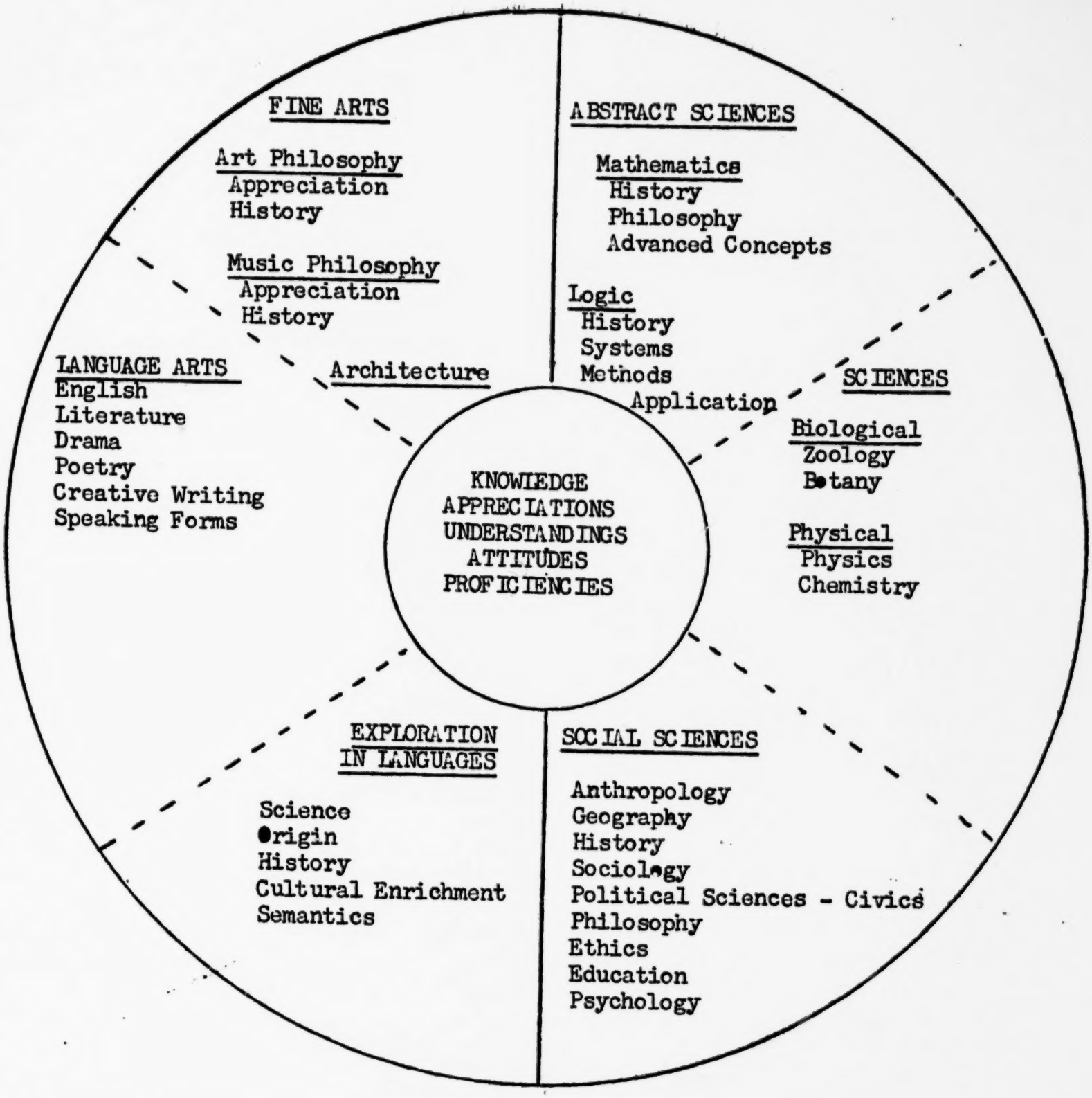
The Coordinator's office is the center of supply for the books and materials mentioned in this report. In addition, the office keeps actual student work samples, tape recordings, pictures of students in action, teacher plans, sample units, and other evidence of that which is described herein.

The key person in the Program is the regular classroom teacher. About fifty per cent (fifty out of ninety-six) of the teachers K-6 participate. About one-third (twelve out of thirty-nine) of the junior high school teachers participate. The primary program is not described in this summary.

In San Rafael we have tried not to plunge into activities per se. Our identification data and our frequent contacts with MAL's as individuals give us direction for courses of action in curriculum experiences, which extend in time from single period sessions, to six to twelve week studies, to year long activities. We desire to provide elastic, student-centered, problem-centered, discriminating departure points for more able learners who can well afford the opportunity.

The San Rafael Curriculum Wheel

(Areas of Study for the More Able Learner)



To assure, to some degree, the well-balanced development of the more able learner, it is suggested that students cover each of these areas at the rate of at least two per year - Grades 4-6. The order in which the areas are covered will depend on the past experiences and present needs of the student and proficiencies of available teachers.

By Eve Geiger and Bob Shore
3/61

San Rafael Criteria for MAL Activities

The regular classroom teacher, the MAL Coordinator, and other personnel cooperatively attempt to advance the mental, emotional, and social growth of the more able students by planning and providing activities which are commensurate with MAL abilities. In doing so, the following criteria are used:

1. Is the activity problem-centered?

2. Is there any "chaff" in the activity? (Is it busy work? Is it something many non-MAL's can do?)

3. Does the activity provide for attitudes and appreciations?

4. Is the scientific method involved?

5. Is the activity student-centered and inductive? (Is there a chance for discovery on the part of the student?)

6. Are there any opportunities for critical thinking? (Is there a chance for decision-making, and for judgments which are factual or inferential?)

7. Are there any opportunities for creative thinking? (Are students asked to present facts and ideas in multiple ways other than those used commonly in the classroom? Are they encouraged to communicate data through symbols <u>per se</u>, through sounds, and through the combined senses? Do students create their own diagrams, debates, demonstrations, and dissections?)

8. Are there any high-level "why" questions? ("How" questions are also high-level questions.)

9. Does the activity involve chronology?

10. Are there any possibilities for increasing the student's world view?

11. Does the activity help a student to understand himself?

12. Is the activity horizontal? (Does it extend to the right and/or to the left of basic or core material?)

13. Is the activity vertical? (Is it advanced and directed toward higher levels?)

14. Are there any opportunities for inventiveness and originality?

15. Are there any possibilities for abstraction? (Do you ask for the product of 9 X 6 by one method or by 23 methods?)

16. Does the activity provide for differentiation of instruction?

17. Do the techniques and ideas in the activity have transfer possibilities? (Are the techniques and ideas appropriate for social studies only, or can they be used in other subjects or other situations?)

Note: All activities reported were evaluated in terms of these criteria, and in terms of the Program purpose goals.

The MacPhail School Program

Mrs. Anne Philbert, Principal

There are two classes at each grade level in grades 4-6 in the MacPhail School. MAL's are located in one class only at each grade level. A total of twelve students from the three grades recorded their MAL activities for the year.

In the fourth grade Miss Wanda Lisle planned and programmed so that students did the following:

1. Worked regularly during the last semester in a special Ginn enrichment workbook in mathematics.
2. Spent several weeks learning to do various scale drawings.
3. Prepared individual science projects for a science fair.
4. Worked extensively over many weeks on constructing and maintaining a weather station. The group wrote, illustrated, and produced an original meteorology handbook.
5. Consistently completed special spelling units.
6. Read for a time in a special advanced anthology.
7. Prepared special reports (explorers, etc.).
8. Did a special study of geology.
9. Did individual science experiments weekly.
10. Did special English activities selected from Practical English Magazine.

Fifth grade students in Miss Providence Frassinello's room did the following:

1. Prepared special science projects for a science fair.
2. Gave individual illustrated talks on such subjects as computers, theories of relativity, etc.
3. Consistently followed the TV space science programs and provided extensions.
4. Read A Christmas Carol, Adam of the Road and writings of Shakespeare.
5. Rewrote into play form and produced A Christmas Carol.
6. Competed in formal competitive status quo debates.
7. Attended the live theater. Saw Taming of the Shrew.

8. Did special creative writing, including poetry.

9. Learned stage craft and theater make-up techniques.

10. Worked in special algebra workbook.

11. Had the new math program.

12. Worked in political science: wrote special candidate reports, heard political aspirants, and participated in panel discussions.

13. Visited Pacific Gas and Electric computer center in San Francisco.

14. Worked on scale maps.

15. Did a special American Heritage unit.

16. Wrote and produced an original radio play.

17. Participated in a special spelling program weekly.

Sixth grade MAL's under Mrs. Dorothy Wall's direction:

1. Did daily extensions of the mathematics program.

2. Worked with measurements: scale drawing, history of measurement, and beginning geometry.

3. Did extensions of the TV mathematics: exponents and new terminology.

4. Did special research for individual science projects.

5. Participated in <u>depth</u> study of special unit entitled "Instruments for Peace". A finished publication was sent to the White House.

6. Worked on a special giant unisphere.

7. Did extra research in preparation for airport field trip.

8. Did special research in connection with study of liberators of South America.

9. Had daily French lessons; visited a French restaurant.

10. Followed special program of dictionary skills. Did special vocabulary building. Used the Collegiate dictionary.

11. Followed Reading Wheel recreational reading program.

12. Wrote special creative interpretations of the news and of films.

13. Emphasized letter writing skills. Did extensive letter writing.

14. Made a special study of libretto in connection with opera "Falstaff".

The Gallinas School Program

Miss Edwina Codoni, Principal

Gallinas School is a small school with one class only at each grade level in grades 4 - 6. A total of sixteen students kept a record of MAL activities for the year.

Grade four MAL's taught by Miss Nancy Gantert:

1. Competed in a special "Jets" spelling program.
2. Participated in a "Read Your Way Around the World" recreational reading program.
3. Joined in weekly class current events radio broadcasts.
4. Followed the SMSG mathematics program for grade four. Participated in many special creative arithmetic skill building exercises.
5. Continually worked on advanced vocabulary building.
6. Did original creative writing (poetry and stories.)
7. Read in a special advanced anthology.
8. Discussed the works of Robert Frost.
9. Worked on special science projects (insectivorous plants, etc.)
10. Built simple digital computers.
11. Did special scale drawing.

In addition: MAL's had excellent opportunities to improve their thinking powers in the unusual number of excellent class discussion sessions held throughout the year in Miss Gantert's room.

In grade five, Miss Phyllis Blagen provided the following program:

1. Worked in a special mathematics group using the Scott, Foresman materials.
2. Had special opportunities for leadership, especially in discussion groups.
3. Worked on U.S. history mural.
4. Acted as choir pianist (one student only).
5. Did special history reports.
6. Followed "Read Your Way Across the U.S." recreational reading program.

7. Helped produce a play.

8. Did special science reports using advanced research materials.

9. Worked in Practical English Magazine regularly.

10. Worked for a time on bonus problems in arithmetic.

11. Did extensive scale drawing.

12. Worked in special spelling group.

13. Typed scripts for the class play.

14. Had special creative writing activities.

Mr. Neil MacPhail, grade six teacher had MAL's:

1. Compete in formal competitive status quo debate (Should boxing be banned?).

2. Demontrate musical instruments for the class.

3. Act as social studies moderator for panel discussions.

4. Follow the SMSG mathematics program.

5. Engage in special mathematics exercises (brain twisters, etc.).

6. Do science experiments for the class.

7. Work with bonus words in spelling.

8. Do special wire sculpture and soldering.

9. Do extra social studies reports.

10. Do extra science reports.

11. Write creative stories using spelling words and a special set of rules.

12. Read Adam of the Road and Treasure Island and study authors as well as writings.

13. Participate in the special Literature Sampler Reading Program.

The Hartzell School Program

Mr. Robert McCurdy, Principal

MAL's are in one of the two classes at each grade level in grades 4 - 6 in Hartzell School. In addition to the special MAL Program conducted in these rooms there has been a concerted effort made to program some students in the second fourth grade. Twenty Hartzell students recorded their activities for the year.

Official MAL's in Mrs. Elizabeth Jacobsen's fourth grade:

1. Studied a space science unit and visited the planetarium.
2. Studied modern art and went to the museum.
3. Wrote original plays for puppets and used the tape recorder.
4. Studied a special mythology unit.
5. Studied the microscope and plant life.
6. Participated in the preparation and presentation of a panel discussion on "Panama".
7. Studied new mathematics program with weekly extensions. (GCMP)
8. Participated in the art festival.
9. Did special science reports (gravity, seeds, air, etc.).
10. Wrote special stories and letters.
11. Did a special study of Africa and heard two special speakers.
12. Did special extensions in Gold Rush and Mission studies.
13. Studied movement in water.
14. Studied famous composers.
15. Worked with accelerated spelling group.
16. Did various art prints (unusual).
17. Did research on printing and explained techniques used.
18. Wrote original Haiku poems.
19. Did a special study of animals in reading program.
20. Studied Japanese brush painting.
21. Did special social studies reports.

22. Had special study of geology. Exchanged rocks with a school in Eastern Oregon (involved letter writing, etc.). Heard speaker.

23. Studied French.

24. Drew maps to scale.

25. Went on special trip to U.C. campus in Berkeley.

26. Studied various authors and their works: Kipling, Twain, Hans Christian Anderson.

Miss Doris Zimpelmann in the other Hartzell School fourth grade communicated and planned regularly with the MAL Coordinator although there were no official MAL's in the class. Miss Zimpelmann programmed some students suspected of having MAL potential (these students have been referred for testing) as follows:

1. Conducted a special trip to the U.C. campus in Berkeley.

2. Carried out a series of sailing experiments in a special study.

3. Studied "wallpaper math".

4. Studied extra spelling words weekly (to eighth grade level).

5. Conducted crayfish dissection and study.

6. Made an extensive study of California missions through special preparation of models.

7. Did special reports: Palestrina, President Johnson, Robert E. Lee, and others.

8. Used six authentic illuminated manuscripts (15th Century) in a study involving writing original Gregorian chants and preparing special Christmas cards.

9. Did special vocabulary building and made use of Collegiate dictionary.

10. Did special science reports.

In grade five Mrs. Marian Congdon had MAL's:

1. Participate in a Reading Design recreational reading program.

2. Use the elementary Literature Sampler.

3. Follow an extended daily mathematics program.

4. Do special social studies research.

5. Write special number stories.

6. Do recreational mathematics tricks and puzzles.

7. Do special language activities on sheets called "Hinky Pinkies". Activities came from the Practical English Magazine.

8. Draw maps to scale and construct model.

9. Do special spelling in Achiever's Spelling Group.

10. Write special stories with special rules using spelling words.

11. Use special Ginn mathematics workbook.

Mrs. Alice Gateley programmed sixth grade MAL's in the following series:

1. Competed in formal competitive status quo debate. Topics were on Columbus, Cortez, boxing, moon race, and South Viet Nam.

2. Used an advanced spelling book weekly.

3. Completed special social studies projects at home.

4. Followed a "Read Your Way Around the World" recreational reading program.

5. Did numerous individual science projects.

6. Had an extended and advanced basic mathematics program weekly.

7. Did extensive map work - to scale.

8. Studied French weekly. Did French play. Used listening station.

9. Prepared special creative bulletin boards.

10. Studied Japanese brush painting.

11. Did special geometric sewing designs.

12. Did depth research in social studies projects. Followed special form.

13. Had leadership opportunities in special discussion groups and panels.

14. Completed"What's In A Word?" illustrated scrapbooks using spelling words.

The Coleman School Program

Mr. Webster Smith, Principal

There are two classes at each grade level, grades 4 - 6, at Coleman School. MAL's are located in every class with the exception of grade six. In grade six MAL's are in one room only, but both sixth grade teachers share in the programming of these students. A total of thirty-eight students recorded their special activities for the year. Not all these students are official MAL's.

In grade four Miss Gay Leonardi scheduled MAL's in the following activities:

1. Made new words from the spelling list.
2. Used the Ginn mathematics enrichment workbook regularly.
3. Did selected pages in the Study Arithmetic for grade four (word problems).
4. Performed individual science experiments and kept a log.
5. Read regularly in an advanced anthology.
6. Completed special Practical English worksheets.
7. Followed a Reading Design recreational reading program.
8. Worked on a unit entitled "Beginning Techniques in the Use of the Microscope".
9. Wrote original stories.
10. Did social studies depth research (Norway, Congo).

Note: Miss Leonardi established and maintained a resource shelf where MAL's went during extra time and at certain hours to select materials for their special individual programs. The "resource shelf" fostered student independence.

Miss Eleanora Lafranchi planned the following MAL activities for her fourth grade eligibles:

1. Participated in the Reading Wheel Library Club.
2. Did individual science experiments.
3. Worked regularly on special worksheets (language arts and mathematics).
4. Constructed weather station equipment.
5. Constructed mission models.

Note: Mrs. Thelma Tabor, grade six teacher, was the foreign language (Spanish) instructor at Coleman School.

6. Worked regularly in the Ginn mathematics enrichment workbook.

7. Did selected pages in Study Arithmetic for grade four (word problems).

8. Had instruction in Spanish (an extensive program).

9. Did extra social studies research on various topics.

10. Worked in the Reader's Digest series.

11. Did advanced spelling and vocabulary building.

12. Participated in Library Club of America.

13. Did special map work.

Note: Miss Lafranchi stocked a resource shelf for free use by eligible students. Children learned to manage themselves and avail themselves of the variety of opportunities waiting for them on the "resource shelf". In addition to regular class time spent with students on special projects, Miss Lafranchi scheduled after school sessions to evaluate progress.

One Coleman School fifth grade group in the MAL Program did the following activities under the direction of Mrs. Pearl Yeager:

1. Worked in the Ginn mathematics enrichment workbook.

2. Did demonstrations with a special group showing molecular motion as discussed in the science text.

3. Prepared individual science projects.

4. Led other students in writing and directing an original play.

5. Led a Westward Movement group study. Directed project planning an execution.

6. Did creative writing which was related to the reading program. Kept an individual reading notebook.

7. Followed the Reading Wheel recreational reading program.

8. Did extended independent reading assignments.

9. Did selected activities in Practical English Magazine.

10. Did individual science experiments and kept a log.

11. Did special social studies research (Colonial houses, integration problem, etc.)

Note: MAL's in Mrs. Yeager's class managed their own activities much of the time as they took advantage of the freedom provided by Mrs. Yeager to explore and experiment.

A second group of fifth grade MAL's in Mr. Tom Kendall's room:

1. Made maps to scale (world, states, Colonial). Painted a large map to scale on the playground for use by primary children.

2. Studied other number systems.

3. Wrote original radio plays and recorded same with sound effects and music.

4. Used Practical English Magazine.

5. Worked in the Ginn mathematics enrichment workbook.

6. Studied the history of the English language and the alphabet very briefly.

7. Used Scribner Arithmetic as an enrichment source.

8. Did individual science projects (a few only).

9. Competed in formal debate.

Note: The MAL Coordinator conducted a writing series for this group once a week for about six weeks. During this series the radio plays were written and produced. Later, the Coordinator directed a small group of students in formal debates.

Mrs. Thelma Tabor and Mrs. Margaret Schave cooperatively programmed sixth grade MAL's. Mrs. Tabor provided the mathematics, social studies, and foreign language programs, and Mrs. Schave provided the science and language arts programs. Sixth grade MAL's:

1. Did extensions in the study of the orchestra.

2. Studied abstract painting. One student became "expert".

3. Studied grade one and grade two Braille under a volunteer instructor. Transcribed original legends.

4. Did an extensive amount of creative writing: stories, essays, legends, poetry, limericks, etc. Illustrated and produced fairy stories on tape with sounds and music.

5. Did special advanced spelling and dictionary study.

6. Prepared special research themes.

7. Had listening tests in reading.

8. Prepared special mathematics reports using Webster enrichment booklets.

9. Heard special lecture on making plaster casts.

10. Heard special lecture on radar.

11. Studied the Scott, Foresman mathematics program.

12. Studied Spanish five days a week (this was an extensive program).

13. Used an advanced literature book.

14. Studied other number bases.

15. Did extensions in science: oil, fly, mosquito, acid tests.

16. Practiced public speaking.

17. Studied an advanced grammar program.

The West End School Program

Mr. Dwight Manning, Principal

Sixteen students recorded special MAL activities for the year at West End School. The activities took place in each single class at each grade level, grades 4 - 6.

Mrs. Cherie Mae Buoy programmed fourth grade participants as follows:

1. Worked in the Ginn mathematics enrichment workbook.
2. Studied individual family histories.
3. Worked on bonus spelling words.
4. Did individual science experiments.
5. Participated in an annual school science fair. (This was a very successful event.)
6. Did depth research on people from other lands.
7. Followed a Reading Design recreational reading program.
8. Read Adam of the Road.
9. Wrote original plays, poetry, and stories.
10. Acted as student teacher in arithmetic.
11. Did a special animal study.
12. Used special reading enrichment worksheets in thinking exercises.
13. Practiced reading technical material and reporting same with and without notes.
14. Learned to use the Chinese abacus.

In Mr. Hillis Newcomb's fifth grade certain students:

1. Used Practical English Magazine regularly.
2. Followed a "Read Your Way Across the U.S." recreational reading program.
3. Drew maps to scale.
4. Worked on weekly bonus spelling words.
5. Wrote original short stories.
6. Did depth study of individual science topics.

7. Studied beginning techniques in the use of the microscope.

8. Did special research in colonial history and biography.

9. Worked on a colonial art mural.

10. Read Call of the Wild and other Jack London stories.

11. Constructed a special time line.

12. Did research in meteorology.

Sixth grade MAL's in Mr. Bloom's room:

1. Studied grade one and grade two Braille. Two of the Braille students transcribed excerpts from the writings of Thomas Jefferson for the Mu Phi Epsilon Braille Music Library in San Francisco.

2. Followed the SMSG mathematics program weekly with regular extensions.

3. Studied conversational French weekly. (This was an extensive French program).

4. Did a depth study of the Inca Civilization. Visited museum to see special Inca exhibit.

5. Did individual science studies in depth.

6. Followed a File Card recreational reading program.

7. Studied Newton's Laws.

8. Studied the Shavian alphabet.

9. Studied Shakespeare.

10. Entered an essay contest.

11. Worked on the Arequipa Project.

12. Participated in class government.

13. Did individual social studies projects in depth.

14. Worked on newspaper analysis.

15. Han an introduction to sculpture in the round.

16. Had special opportunities in research, both individual and team.

17. Studied bio-luminosity; explored and experimented.

The Sun Valley School Program

Mr. Dwight Manning, Principal

In the three middle grade rooms, grades 4 - 6, at Sun Valley School MAL's were located in the fourth grade room and in the fifth grade room only. A total of five students recorded MAL activities for the year.

Miss Judy Boss provided the following activities for one identified MAL:

1. Lessons in a special geometry workbook.
2. Creative writing - poetry.
3. French language workbook.
4. Scott, Foresman mathematics.

Note: Miss Boss replaced the regular teacher the second semester. The first semester program in this room consisted of a minimum number of weekly extensions in the basic subjects.

As scheduled by Mrs. Pamela Pedrazzini:

1. Worked in the enrichment program in arithmetic for grade four State Series.
2. Worked in Building in Numberland weekly.
3. Participated in "spelling baseball" bonus words. The words pertained to current events of the week except during October: goblins, grotesque, etc.
4. Worked in the Reader's Digest skill builder series.

Miss Alice Tobin scheduled fifth grade MAL's as follows:

1. Did special depth studies in social studies. These projects involved letter writing and research skills. Students did numerous topics throughout the year.
2. Did individual science experiments and kept a science log.
3. Participated in a short story writing seminar in which student stories were published. (A Coordinator-directed activity.)
4. Worked in the Ginn mathematics enrichment workbook.
5. Studied the Indian loom and Indian lore.
6. Had numerous art opportunities.
7. Followed the Reading Wheel recreational reading program.

The Short School Program

Miss Edwina Codoni, Principal

Short School is a small school housing a kindergarten and grades one to five. The fifth grade was an overflow class which diminished in size considerably by the end of the school year. Three fourth grade students recorded MAL activities for the year. As many as eight students were involved in special activities from time to time in grade five, but complete identification information was lacking in this group. Numerous students in grade five were eventually dispersed to other schools, where some continued participation in special programs recorded elsewhere in this report.

Mrs. Norma Starankovic scheduled fourth grade MAL's in the following activities:

1. Wrote original creative stories and poems.
2. Practiced mental arithmetic frequently.
3. Followed the Reading Wheel recreational reading program.
4. Did crossword puzzles in the spelling program.
5. Followed the Scott, Foresman mathematics program.
6. Had numerous opportunities to do recreational arithmetic puzzles, magic squares, etc.).
7. Worked on a special presentation entitled "Space Science Problems".
8. Participated in a second year of studying French.
9. Studied famous composers.

Note: The Short School fifth grade activities are not recorded.

The Laurel Dell Intermediate School Program

Mr. William Sewell, Principal

Laurel Dell Intermediate School is a large school with fourteen students reporting MAL activities for the year. These students were located in three of the eight classes in grades 4 - 6.

Mrs. Jacqueline Mooney planned for MAL's as follows:

1. Studied Suppes geometry.
2. Built weather station equipment and recorded data for several months. Predicted weather.
3. Studied the Scott, Foresman mathematics program.
4. Did weekly "brain stretchers" in spelling.
5. Participated as a member of the Library Club of America.
6. Built California mission models and wrote reports.
7. Did special science reports and experiments.
8. Built a relief map of California.
9. Did numerous social studies research projects with extra reading.

In grade five at Laurel Dell Intermediate School three different teachers exchanged classes daily and taught in a "departmentalized" program. The MAL's located in one of the fifth grades were programmed by Mrs. Janet Clark, Miss Frances Mason, and Miss Joan Wisneski in mathematics, social studies, science and the language arts as follows:

1. Followed the Scott, Foresman mathematics program with many extensions.
2. Did an extensive amount of creative writing: limericks, stories, essays, paragraphs, etc.
3. Participated in the Arrow Book Club.
4. Did individual science experiments.
5. Studied bonus spelling words weekly.
6. Prepared special mathematics projects.
7. Published a school newspaper.
8. Gave a brass instrumental quartet demonstration.
9. Visited the Bay Area Science Fair and the Wells Fargo Bank, San Francisco.

10. Heard a National Parks lecture.

11. Heard an ornithology lecture.

12. Did individual social studies research projects (famous Americans, etc.).

13. Made relief maps of the United States.

14. Prepared creative brochures on National Parks.

15. Used Roget's Thesaurus.

16. Built models of transportation.

17. Did special book reviews and dramatizations.

18. Studied the Chinese abacus.

19. Studied symbols in mathematics.

20. Wrote special English reports using advanced techniques and reference materials.

21. Sketched maps of the United States using latitude and longitude lines as guide lines.

Mrs. Frances Lawler planned and programmed MAL's as follows:

1. Competed in formal competitive status quo debates. (Topics: Viet Nam, Central America and foreign aid, wrestling.)

2. Heard a special astronomy lecture.

3. Studied the opera "Faust" and "The Magic Flute".

4. Competed in science fair competition. (This was a very successful event.)

5. Attended a special lecture series on "How We See".

6. Saw movie and participated in special panel discussion on the theories of relativity.

7. Heard special lecture on the optical laser.

8. Visited a data processing computer center in San Francisco.

9. Studied the Scott, Foresman mathematics program.

10. Worked in the Ginn mathematics enrichment workbook.

11. Prepared depth studies in history and geography with extensive map work.

12. Did creative writing: newspaper, short stories.

13. Read in an advanced anthology.

14. Read a series of paperbacks: Irish Red, Treasure Island, King Arthur.

15. Studied Spanish regularly with many extensions. Produced a special play.

16. Attended opera "Faust" in San Francisco.

17. Used the Davidson Junior High library frequently.

18. Observed frog dissection by a high school student. Sketched parts and did some research.

19. Studied a series of famous paintings.

Note: These sixth grade MAL's and their able classmates were so highly motivated it was difficult to close the year. The great variety and depth of their program, and the rate at which they proceeded made an unusual situation.

The San Pedro School Program

Mrs. Lee Heise, Principal

San Pedro School is a large school with two classes at each grade in grades four and five. In grade six there are three classes. MAL's are located in all three sixth grade rooms, in one fifth grade room, and in both fourth grade rooms. A total of twenty-six students recorded their special MAL activities for the year at San Pedro School.

In Mr. Irving Blabon's fourth grade MAL's engaged in the following activities:

1. Attended expert series entitled "How are Mountains Measured?".
2. Drew maps to scale and made a special relief map of California.
3. Studied extra spelling words each week.
4. Prepared special reports on Egypt, California explorers, and California mountains.
5. Studied beginning techniques in the use of the microscope.
6. Wrote original poems and illustrated them.

Fourth grade MAL's in Mrs. Norma Geissberger's class:

1. Completed the basic arithmetic program at an accelerated pace.
2. Worked in the Harcourt PI series enrichment books A and B.
3. Did science experiments for the class.
4. Used Larsen arithmetic enrichment booklets.
5. Did extra spelling words weekly.
6. Followed the Reading Design recreational reading program.
7. Worked in the Ginn enrichment workbook in mathematics.
8. Did research on Japanese history and other topics.

Miss Sandra Korle's fifth grade MAL's:

1. Participated in a special spelling program with extra words.
2. Did the extensions in the Ginn reader.
3. Participated in an individualized reading program.
4. Helped produce an 8 MM movie entitled "Trip to the Moon" (one student only).
5. Did extensive research on comparative history in art, music, science, government and literature. Prepared a special time line.

6. Attended an expert series on "How are Mountains Measured?"

7. Prepared special science projects.

8. Attended a special lecture on creative writing (author had written about Robert Frost).

9. Attended a special demonstration of spinning wheels and the spinning process.

10. Prepared special social studies reports.

In Mrs. Lydia Lund's sixth grade MAL's:

1. Attended a special expert series on "How are Mountains Measured?"

2. Participated in special mathematics activities:

   a. Followed Scott, Foresman Program
   b. Did beginning geometry
   c. Used Ginn enrichment workbooks

3. Followed the Reading Wheel recreational reading program.

4. Studied in a special spelling program.

5. Did special research on prehistoric animals and other subjects.

6. Did special creative writing.

7. Helped produce an 8 MM movie entitled "Trip to the Moon".

8. Studied and drew the human skeletal system.

9. Attended a lecture given by author who had written about Robert Frost.

10. Made special conservation posters.

Sixth grade MAL's in Mr. Ruban Carrillo's class:

1. Had special instruction in creative writing: The Short Story.

2. Did depth research on Latin American topics.

3. Attended a special expert lecture series on "How are Mountains Measured?"

4. Followed Card File recreational reading program.

5. Attended special lecture on creative writing (author had written about Robert Frost).

6. Did special science reports.

7. Did scale drawings of Brazil.

Mrs. Carol LaBossiere programmed sixth grade MAL's in the following series:

1. Did special art bulletin board and reports on artists. Visited San Francisco Art Museum.
2. Worked in a special Ginn mathematics workbook
3. Read in an advanced anthology.
4. Did extra credit activities in arithmetic.
5. Used Practical English Magazine.
6. Studied bonus words in spelling.
7. Had numerous opportunities for committee and lecture leadership.
8. Did periodic book reviews.
9. Used the Reading Wheel in a recreational reading program.
10. Attended a special lecture on creative writing (book about Robert Frost was discussed by author).
11. Attended an expert series on "How are Mountains Measured?"
12. Completed an inventory of the school mobile science laboratory. Classified science laboratory equipment and made a scrapbook.
13. Did individual science experiments and reports.
14. Did a special mathematics report.
15. Entered an essay contest.
16. Did a project on law and government.
17. Read Fail Safe and made report on the book (one student only).
18. Participated in a round-table discussion on topic of art with lay moderator.

The Glenwood School Program

Mr. Leo Shortino, Principal

The new Glenwood School presently has two fourth grade classes and one fifth grade class. Twenty-one students in these three classes reported their MAL activities for the year. All of these students are not official MAL's.

Certain students in Miss Marian Egan's fourth grade participated in the following MAL activities:

1. Studied additional spelling words regularly. Developed a special vocabulary list.
2. Made written and oral reports in social studies in depth.
3. Built exceptional California mission models.
4. Read regularly in an advanced anthology. Held discussions.
5. Read and reported on numerous biographies of famous people.
6. Did individual science experiments and kept a log.
7. Used the Ginn mathematics enrichment workbook.

Note: Each student in Miss Egan's special program kept his own MAL activity notebook with subject tab indicators. The notebook was the student's own file of program activities.

Mrs. Avis McColm programmed MAL's as follows:

1. Solved number puzzles and did daily work in the Ginn mathematics workbook.
2. Did science demonstrations for the class using experiments suggested in the science text.
3. Completed group reports and projects in social studies in depth.
4. Wrote original stories and poems.
5. Listened to the music of famous musicians discussed in the reading program.
6. Worked on a special spelling list.
7. Comppeted in a recreational reading program.
8. Used a room listening station to study French language records.
9. Did selected exercises in the Practical English Magazine regularly.
10. Worked with a compound microscope (one student only).

11. Studied geology briefly (one student only).

12. Drew maps to scale.

In addition, Mrs. McColm wrote daily subject extensions on the blackboard for children capable of completing same. MAL's were very active in this part of Mrs. McColm's daily program.

MAL's in Mrs. Laura Beswick's room:

1. Studied grade one and grade two Braille. Transcribed The True Book of Our Post Office and It's Helpers for a blind child at Marindale School.

2. Worked on other number systems.

3. Made scale drawings.

4. Studied the oil refinery; constructed a model and performed a series of experiments.

5. Did special social studies research on Canada.

6. Participated in a special unit entitled "Our American Heritage".

7. Worked at length on torn paper art.

8. Participated in the Scott, Foresman new mathematics program.

9. Worked in a special spelling group weekly.

10. Followed a Reading Design recreational reading program.

11. Studied beginning techniques in the use of the microscope (one student only).

12. Studied the Trachtenberg mathematics.

13. Competed in a "Story of the Week" writing program (Done by student while in another class.)

14. Did individual science experiments.

JUNIOR HIGH SCHOOL PROGRAMS

A Description

Students in the two junior high schools in San Rafael are grouped according to ability in a departmentalized program. The MAL's are clustered in high ability classes where an advanced curriculum in the arts and sciences is offered. (It might be noted that non-cluster classes are not slow classes; these classes contain many able students who frequently compete on a more able level as high achievers.) The high ability groups proceed at a rate which is more accelerated than most groups. The MAL classes participate in a Sacramento Type 3 program:

> Programs in which pupils are placed in grades or classes more advanced than those of their own chronological age group and receive special instruction outside of the regular classroom in order to assist them in handling the advanced work.[1]

Much of the equipment and many of the materials and books found in the San Rafael junior high schools are not commonly found at this level. In order to provide an accelerated, student-centered, individualized program, advanced goods and services have been made available. To facilitate the individualized program different departments have developed cooperative efforts to plan units together and combine disciplines to achieve mutual goals. A deliberate attempt has been made to create a high ceiling over the heads of all students.

[1] California Administrative Code, Article 23, Specially Educational Programs for Mentally Gifted Minors

Santa Venetia Junior High School MAL Program

MAL Extensions and Special Opportunities

Mathematics Department

1. Completed the seventh and eighth grade Scott, Foresman basic program at an accelerated rate. Focused on "Challenge" sections of the text.

2. Completed the First Year algebra course in grade eight. The final test was developed by the Terra Linda High School Algebra I teacher. Students will receive advanced placement in Algebra II in grade nine.

3. Reported on individual mathematics topics as a semester assignment.

4. Developed individual mathematics projects. Some projects were:

   Number systems debate
   Topology
   Finite number systems
   History of mathematics
   Men of math
   Geometric figures
   Symbols in math
   Geometric models
   Scale drawings (scaling down)

5. Helped slower students with their work.

6. Participated in an advanced mathematics seminar. Did simple geometry; informal and formal proof of theorems.

Science Department

1. Completed the basic program in an accelerated manner. There was more depth in:

   -Terms
   -Vocabulary
   -Extensive study questions
   -Oral presentations
   -Two one-month projects
   -Independent activity

2. Developed (by the teacher) a special field guide for biology students. The guide, which is entitled A General Guide for Study in Biology, contains: laboratory techniques, microscope techniques, rules for safety first, record keeping techniques, study habits, study skills, study sheets, and plant and animal keys. An advanced edition of the Guide is being prepared for MAL's. This has been the second year of development.

3. Used special book, How to Experiment by Goldstein, in connection with independent studies and advanced groups.

4. Used a special collection of library and classroom reference works.

5. Used numerous high school books and outlines in physical and biological science.

6. Selected science films and conducted small group showings.

7. Gathered and preserved specimens for the school collection.

8. Studied scientific classification. Went into much taxonomic detail.

9. Learned how to dissect plants and animals.

10. Studied ecology. Prepared special ecological laboratory (miniature controlled environment) for continued study. Large group project grew out of small independent studies.

11. Studied scientific word origins. Took one word a day for six weeks.

12. Studied elementary chemistry beyond the usual limts for junior high school. Used high school sources.

13. Individuals studied such topics as paints, textiles, soaps, and cosmetics. Students had an individualized laboratory period for making these items. In addition, individuals:

    a. Met in special study groups to discuss current scientific findings.

    b. Met in special groups to discuss atomic energy. A representative from the P.G. and E. Atomic Energy Plant showed pictures and discussed the advantages of atomic energy.

    c. Met with a Stanford Linear Accelerator engineer to discuss the Stanford Project. Films were shown.

    d. Obtained Geiger counters and radio active material for special depth study.

14. Continued a data recording project for the Bay Area Air Pollution Control District. Information gathered is to be used in a National study.

15. Used many periodicals in science studies.

16. Emphasized library skills and research techniques.

History Department

1. Did extensive reading in history with special questions to answer.

2. Cooperated with the English Department on written work.

3. Emphasized that which was philosophical.

4. Gave attention to controversy.

5. Developed an original version of a World Constitution.

6. Read reprints of original documents and writings (Up from Slavery, Early Narratives, and Profiles in Courage).

7. Drew heavily upon supplementary books.

8. Drew upon teacher-prepared anthology of American literature and history.

9. Read Red Badge of Courage and the Dooley Books.

10. Learned to write essay examinations.

11. Periodicals used jointly by English, Science, History:

    Practical English
    Atlantic
    Harpers
    Western Edition of New York Times
    U.S. News and World Report
    Time
    Newsweek
    National Geographic
    Scientific American
    Science Newsletter
    Saturday Review

English Department

Reading

1. Worked in the basic readers at an accelerated rate. Read Scott, Foresman Wide, Wide World (Grade 7) and All Around America (Grade 8).

2. Read biographies.

3. Used SRA Secondary Reading Laboratory (Grade 7).

4. Participated in a correlated study of American literature and American history. A chief purpose of the study was to show reasons and causes behind great events and movements in history. Students met regularly in separate English and history groups followed by meetings in a combined history and English group. Copies of original documents

and writings were used in the course.

5. Participated in an individualized reading program involving parent participation. Such titles as Good Earth, Bridge at San Luis Rey, Goodbye Mr. Chips, Call it Courage, Pathfinder, etc. were studied at home and in school. Parents, teachers, and students discussed and analyzed the various books.

Speaking

1. Did research and presented arguments in formal debates. Some debate topics were:

   Twelve-Month School Year
   School Curriculum
   Safety Factors vs. Teenagers
   Expansion of Red China
   Humanities vs. Science (In receiving NDEA money grants)

   Note: The above experiences provided a background for writing graduation speeches. The transfer of training was impressive.

2. Prepared and conducted panel discussions.

3. Participated in small group discussions.

4. Participated in a symposium on literature.

Listening

1. Gained practice in notetaking during lectures (especially in English and history courses).

Foreign Language Department

1. Received instruction from a highly qualified secondary teacher of French and Spanish. Grade seven students could select French or Spanish for study while grade eight students studied French only. The ALM materials were used. As a result of the advanced French program in grade eight approximately twenty-five students will receive advanced standing in grade nine in high school. Articulation with the high school teacher throughout the year was excellent. A cooperative all-day workshop was held one day during the year; both junior high and high school teachers attended.

Davidson Junior High School MAL Program

MAL Extensions and Special Opportunities

Mathematics Department

1. Completed the regular program at an advanced level using SMSG materials.

2. Solved SMSG starred problems as an independent activity.

3. Assigned numerous mathematics projects one semestem. Projects involved research, library skills, problem solving, and creativity. Project had to explain itself in final form for presentation.

4. Assigned oral reports once a semester as an independent activity.

5. Learned advanced slide rule operations in grade eight.

6. Studied some rules of the Trachtenberg Speed System of Mathematics.

7. Studied topology using the Webster booklet (St. Louis Publisher), and Life Science: Mathematics.

8. Studied Pascal's triangle. Learned patterns, generalizations, and symbolic representation.

9. Studied some trigonometry.

10. Studied recreational mathematics (tricks, puzzles, fascinations).

11. Studied probability combinations and permutations (grade eight).

12. Studied modular arithmetic and mathematical systems.

Science Department

1. Prepared two or more of the research reports required at each grade level (seven and eight). Reports dealt with a major principle or concept being studied. Presentations were oral and written. Illustrative exhibits and/or demonstrations were prepared. An emphasis was placed upon vocabulary.

2. Did weekly supplemental reading in scientific materials of a relatively mature level. Some of the periodicals used were: Scientific American, Science Digest, Natural History, Today's Health. Reports of readings were coordinated with the English Department which utilizes the periodicals for instruction in note-taking, bibliographical citation, and paragraph writing.

3. Seventh grade unit on meteorology:

    a. Considered in detail principles involved in movements of the atmosphere, including molecular nature of gases, effect of heat on the atmosphere (change in molecular movement and pressure, density, condensation, and evaporation, expansion and contraction, relation of density of cool and warm air to gravitation and convection).

b. Studied importance of water vapor in weather.
c. Studied major circulation pattern of the atmosphere, convection cells, and coriolis effect.
d. Studied development of typical cyclone and anticyclone systems.
e. Studied dew point, cloud formation, precipitation, and the weather map.
f. Took and maintained records of weather for six-week period.
g. Compared records and predictions to official weather reports for area.

4. Students in the seventh grade geology unit did an intensive study of:

a. Concepts of earth formation and structure.
b. Antagonistic forces of mountain building and erosion.
c. Tectonic and magmatic processes of mountain formation.
d. Erosive action of water, wind, and chemicals.
e. Rock formation by plutonic, volcanic, sedimentary, and metamorphic processes.
f. Nature, effect, and importance of ground water.
g. Glaciation.
h. Fossils in relation to the changing face of the continent.

5. Eighth grade study unit on astronomy and space covered:

a. A comprehensive overview of basic concepts in astronomy dealing with the origin of the solar and other systems in space.
b. The nature and extent of space.
c. Forces concerned with placement of objects in space and the forces which affect them.
d. A sequential development of man's concept of space and space study from Eratosthenes through Democritus, Aristotle, Ptolemy, Copernicus, Galileo, Brahe, Kepler, Newton, and Einstein.

Note: Lectures, student research reports presented orally, and films were used to develop laws and theories originated by these men.

6. Eighth grade study unit on gross human anatomy and body function covered in depth:

a. The development of basic structure from cell through tissues to organs and systems.
b. Fairly comprehensive treatment of the systems, including anatomical features and functions.
c. Inter-relation between the systemic functions.
d. Some anthropological considerations.

7. Eighth grade unit on matter and energy covered:

a. A theoretical study in the concepts of matter and energy emphasizing the structure, energy relationships, and role of the atom.
b. The atomic basis for different elements.
c. The nature and creation of isotopes.
d. The primary energy shells and their significance.
e. The periodic chart of the elements.

History Department

1. Studied a unit entitled "American People Build a Way of Life". The unit extended from the Colonial Period to the establishment of an American Government. While using an evolutionary approach an emphasis was placed upon the present rather than upon the past per se.

2. Given opportunity for independent student-centered project work.

3. Conducted panel and non-panel discussion groups.

   a. One committee tried to look at present problems through the eyes of Jefferson, Hamilton, Washington, Adams and Franklin.
   b. One group did a "You are There" on Lincoln's death.

4. Presented weekly news panels on current events.

5. Emphasized library skills and research techniques.

6. Drew maps to scale.

7. Debated on: Filibuster should be limited in the Senate; firearms should not be owned by individuals.

8. Studied the history of Western civilization through teacher lecture and student note-taking, and special research. A museum approach was achieved by students reproducing art objects from the various areas of study and reporting on these to the class. Dr. Welmouth from Dominican College in San Rafael lectured on Medieval art. Students also heard from other "experts". A comparative study of history was made by creating graphic definitions of economic, educational, and cultural achievements through the ages in the Western world.

   Lectures by members of the community:

   a. India and its relation to the U.S. - Dr. Welmouth of Dominican College, San Rafael.
   b. Medieval art - Dr. Hartman M.D. from Mill Valley.
   c. The electoral system - Mr. Gudmundson, Attorney at Law.
   d. Political party system - Mrs. Vera Schultz, candidate for the State Senate.

9. Emphasized depth research on numerous topics. Students handled more than average material in quantity and quality. The instructors lectured to train students in listening and writing skills.

10. Had daily reporting of current events. Kept a diary of all news reported in individual notebooks. This was a very popular activity.

11. Compared and contrasted world geographies based upon a study of weather and climate, politics, religions, education, economics, U.N. associations, etc. Studied man's relation to his environment.

12. Prepared individual student-centered projects in geography.

13. Studied a special unit on Russian music and culture.

14. Studied films "Nightmare in Red" and "The Twisted Cross" in connection with world history.

English Department

Reading

1. Completed basic readers at an accelerated pace with a special emphasis upon vocabulary building.

2. Used the SRA Reading Program.

3. Used the Controlled Reader. Some students achieved 475 words per minute.

4. Read numerous classics by English and American writers. In one group three to five students read the same book and held round-table discussions based upon a special set of questions.

5. Studied the novel.

6. Did literary research: compiled an annotated summer reading list.

7. Read American humorists. Prepared illustrated reports (visual humor from verbal humor - cartooning, etc.).

8. Studied poetry: meter, rhyme, etc.; prepared illustrated poetry booklets.

9. Followed an extensive individualized library reading program. Students had to read at least one book every two weeks. Read such books as Tom Sawyer, Huckleberry Finn, Captains Courageous, Ivanhoe, Animal Farm, To Kill a Mockingbird, Cheaper by the Dozen. Students kept annotated card catalogues as a record of reading done. There were numerous modifications of this program.

Writing

1. Did basic descriptive writing: character study, action description, and setting description.

2. Concentrated on dictionary skills and word studies.

3. Carried through "term paper" techniques:

   Cooperated with history class
   Did scholarly notetaking
   Did outlining
   Gave attention to paragraph transition
   Strived for original beginnings
   Made footnotes
   Used Reader's Guide to Periodical Literature
   Noted bibliography

4. Worked on the technique of notetaking.

5. Received English credit for science project research.

6. Spelled the "Big Ten" every week. Kept a year-long notebook. Words came from history, science, etc. Worked on etymologies. Everyone agreed on a common definition on Wednesday of each week. On Fridays the definitions were given orally - students had to think of correct word and spell the word. Big Ten also had to be located in newspapers and periodicals.

7. Regular weekly spelling words were given in groups of three, requiring complete recall.

8. Kept list of "Words I Built": used roots, prefixes, suffixes, etc. from different words and combined to make new and original words.

9. Did special research with bibliographical citation. Several groups were in a cooperative English-science effort (the departments worked together on the activity).

10. Did a special study in connection with history class topics. Special attention was given to various reference classifications. Learned that history research is found in categories other than the 900's; for example: looked in fiction sources such as Richter's Light in the Forest for Indian life and lore.

11. Followed a Collegiate dictionary program.

12. Made extensive use of New York World Telegram World Almanac.

13. Worked on a unit called "How to do Library Research".

14. Wrote themes regularly. Used the opaque projector in group viewing for criticism.

15. Wrote reports on biographies.

16. Concentrated on improving sentence structure. Worked for variety.

17. Wrote original plays.

18. Wrote original satires and dialogues.

19. Compared writers (Thurber, Saroyan, Will Rogers, Ogden Nash).

20. Wrote and recognized in reading - figures of speech. (Example: Evangeline).

21. Kept advanced spelling lists from social studies and literature. Used these words in creative writing and in the English program. Classes participated in weekly spelling contests based upon grade points.

22. Concentrated on a five-week unit on library skills. Used Practical English Magazine, Junior Scholastic Magazine, Reader's Guide, and various indexes.

Students worked on notetaking, outlines and paragraphing. Then a form was developed for long reports.

23. Used teacher-prepared materials from English Grammar and Composition by Worriner (Harcourt Brace).

24. Wrote analytical character sketches.

25. Did interpretive writing. Took a situation and put in a new plot.

26. Entered the American Legion Essay Writing Contest.

Speaking

1. Had many extensive class discussions of literature and writing.

2. Competed in timed informative speeches.

3. Reported on research.

4. Debated humor and reading.

5. Had round-table discussions of reading materials.

6. Gave formal oral book reviews (not reports).

* * *

Davidson MAL Program Teacher Committee

For a time during the school year a special teacher committee met with the MAL Coordinator to discuss and evaluate the Davidson MAL Program. The following items were committee topics:

1. Guidelines for a Coordinator P.T.A. presentation.
2. MAL lists of names.
3. What is an MAL?
4. How do MAL's change at the junior high level?
5. Program of the Experts.
6. Are we loosely structured in this program?
7. MAL's in creative arts and music.
8. Problems in MAL daily programming.
9. Special supplies, materials, and equipment.
10. Cooperative teaching.
11. Work samples.
12. Effect of the Program on the entire school.
13. Underachieving MAL's.
14. Articulation with the high school.
15. Record keeping.

PROGRAM OF THE EXPERTS

The program of the experts grew out of attempts in former years to provide special classes and events for more able students. Such attempts were made because it was acknowledged in San Rafael that community sources, in addition to school sources, were needed to achieve the goals established for more able learners. As a result, lay and professional persons interested in contributing their time and talent to public education frequently inspired many more able learners who were capable of going beyond the regular school program.

During the past two years the Program of the Experts has become an integral part of the MAL Program. Highly qualified individuals in many of the arts and sciences instruct MAL's in single sessions and in numerous series lasting as long as one year. The Program of the Experts is academic and cultural - it is not recreational nor is it a form of entertainment. The goals for MAL's are held clearly in view, and teaching participants are oriented to education and the art of teaching.

1. City Redevelopment Series: The Problems of Visual Communication and the Redevelopment of Downtown San Rafael: A group of nineteen Davidson Junior High School students formed the Davidson Advertising Agency under the direction of Mr. Frank Kane, President of Kane Art and Advertising, Inc., San Francisco. The students, led by Mr. Kane, studied the downtown problems in San Rafael, and as an advertising agency appeared before over fifty civic leaders at a noon luncheon to make recommendations for the improvement of the downtown area. Special advertising agency presentation techniques were used skillfully at the luncheon. The series continued for six weeks.

2. Spinning Program: Mrs. H.C. Copestick of Mill Valley, California, and Mrs. H.C. McKinley of San Francisco, both members of the Gravander Spinners, presented an afternoon program on the art of spinning. Students in grades four and five at the San Pedro School participated in the event.

3. Mountain Measurement Series - How Are Mountains Measured?: Mr. Philip Lygren, licensed land surveyor, instructed about thirty-five students in grades 4 - 6 at San Pedro School in a five-week series. Students kept notebooks which were evaluated in great detail by Mr. Lygren.

4. Geology Presentations: Mr. Alfred Grapes, lapidary specialist from San Francisco, appeared before numerous groups studying geology. Expert help was given in identifying many specimens of rocks and minerals.

5. Linear Accelerator Lecture: Mr. Douglas W. Dupen, Technical Information Officer at the Stanford Linear Accelerator Center, lectured at Santa Venetia Junior High School on December 3.

6. Microbiology Series: For the second year Dr. John Manwaring, Marin County pathologist, tutored a large number of MAL's in microbiology. One group met after school for 1½ hours one day a week most of the year to study the techniques of blood analysis and white cell tissue culture in preparation for a study of teratogenetics. A second group met once a week for six weeks to learn to type blood and to make blood counts.

Students working with Dr. Manwaring used the Marin Medical Laboratories for some of their activities.

7. Braille Series: About fifty-five students in grades five and six in three schools had Braille instruction for six to twelve weeks. Volunteer instructors from the California League for the Handicapped met weekly with the students. Two groups appeared on TV. A personal library book was transcribed for a young blind child, and transcribed excerpts from the writings of Jefferson were presented to the Mu Phi Epsilon Music Braille Library in San Francisco. Some students wrote original legends in Braille. As a result of the Braille studies a summer club was formed.

8. Art Round-Table Discussion: A group of sixth grade students met with a parent, Mrs. Mary Brooks McPherson, to discuss famous paintings. Mrs. McPherson acted as art critic and discussion moderator.

9. Meet-the-Author Session: Approximately forty San Pedro School students in grades 4 - 6 met to discuss creative writing with Margaret Bartlett Anderson, author of Robert Frost and John Bartlett: the Record of a Friendship.

10. How Do We See? Series: Dr. Gerald Belanger, Mill Valley optometrist conducted a series of before-school sessions for about twenty-five MAL's in grades 6 - 8. The group met at the Davidson Junior High School.

11. Session on Kepler's Laws: Mr. Paul Clymer, Vice-President and astronomy teacher at College of Marin, lectured to a Laurel Dell Intermediate School sixth grade on Kepler's Laws.

12. Light for Communication Lecture: Miss Iris Hudgens of the Pacific Telephone Company lectured to a Laurel Dell Intermediate School sixth grade on Light for Communication and the Optical Laser.

13. Creative Writing Series: Fifteen Davidson Junior High School MAL's received instruction from Mr. Evan G. Valens, Mill Valley author. Mr. Valens has written numerous science books for young people including Elements of the Universe, an Edison Foundation Award winner. The culminating critiques written by Mr. Valens for each student were a highlight of the series.

SPECIAL FACILITIES AND MATERIALS

San Rafael Special MAL Facilities

1. School Libraries

   The libraries in the K-6 schools are used regularly by the MAL's, the MAL Coordinator, and by the teachers in the Program. Besides being used for the usual library services, the libraries are also used as meeting places for special seminar groups, and for consultation. The superior junior high school libraries and other libraries are used frequently for middle grade MAL research activities, and for other needs.

2. E Street Curriculum Center

   The old E Street School, which houses Special Services personnel and the District Curriculum Center, is also the location of the MAL Program office and central supply room.

3. Special School Corners

   In some schools special corners are allocated for MAL activity. The areas contain storage cabinets and special tables and chairs which are used by MAL's during periods of freedom from regular class assignments. The corners are located in classrooms and corridors. The latest innovation in this area is the "resource shelf" for MAL's.

4. Health Services Facilities

   The Department of Health Services makes consultation space available to MAL groups upon request. School nurses counsel Program students on ear and eye tests and some other physiological problems in MAL science activity.

5. Marin Medical Laboratories

   Facilities at Marin Medical Laboratories, 711 D Street, San Rafael, and 61 Camino Alto, Mill Valley, were used by MAL's studying microbiology.

San Rafael Special MAL Materials

Mathematics

1. SMSG materials, grades four to eight.
2. Subscriptions to the Mathematics Student Journal.
3. University of Illinois Mathematics Project materials, grade five.
4. Scott, Foresman STA materials, grade three to eight.
5. Webster Mathematics Booklets.
6. Row, Peterson Enrichment Booklets, grade three to eight.

7. Trachtenberg Mathematics.
8. Abacus Arithmetic.
9. Using the Language of Algebra in Arithmetic.
10. Scott, Foresman Study Arithmetic, grade four to six.
11. Slide rules.
12. Special collection of recreational mathematics books.
13. Ginn mathematics enrichment workbooks for grades four to six.
14. Geometry for Primary Grades by Suppes and Hawley.

Physical and Biological Science

1. Large list of chemicals.
2. Science experiment packets.
3. Radio equipment.
4. Enough standard supplies for two small laboratories.
5. Models of birds in flight.
6. Living Science Research Projects in biology and chemistry.
7. How to Dissect by Berman (Sentinel).
8. Aquarium equipment.
9. How To Do An Experiment by Goldstein.
10. Collection of high school physics, chemistry, and biology texts and laboratory manuals.
11. Subscription to Science-Math Weekly.
12. Biology Investigation by Otto and others.
13. Living Science Laboratory: Earth's Crust.
14. Living Science Laboratory: Green Plant.
15. Embryo Development of the Chick - filmstrip and manual.
16. University of Illinois Elementary Science Project: Charting the Universe.
17. University of Illinois Elementary Science Project: The Universe in Motion.
18. Live and preserved zoology specimens.
19. Colorimeter Lovibond Comparitor with phenolphthalein disc.
20. Volz sunphotometer.
21. Dwyer rotameter.
22. Potentiometers.
23. Millammeters.
24. University of California Elementary Science Project: Embryology Unit.
25. Complete materials for an analogue computer.
26. Holt, Rinehart, and Winston Exploring Science Kit.
27. Biology specimens for dissection.
28. Subscriptions to Nature and Science Magazine.
29. Hygrometer, Sling Psychrometer.
30. Collection of insectivorous plants for observation purposes.
31. Compound microscopes (13).

Social Sciences

1. Song of America (Decca label).
2. College Outline Series in American History (Barnes & Noble Series).
3. Vol. I of the Life History - The New World.
4. Giant five-foot wooden unisphere.

Foreign Languages

1. English-French-German-Spanish Word Frequency Dictionary.
2. j 'etudie le francais (workbook).

Language Arts

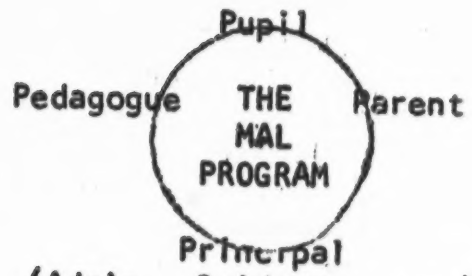
1. Subscriptions to Practical English Magazine.
2. Fifty Merriam Webster Collegiate Dictionaries
3. Liberal number of paperback titles (Jungle Books, Call of the Wild and Other Stories, and others).
4. Small sets of unused readers (Firelight Book, Your World in Prose and Verse, and others).
5. Collection of periodicals.
6. Tales from Shakespeare by Charles and Mary Lamb.
7. Sets of different unused junior high anthologies.
8. LMI Literature Sampler, Secondary Edition.
9. Glossateer of World Literature.
10. Experiences in Journalism by Lyons.
11. 1963 World Almanac (New York World Telegram).
12. Literary-Pictorial Map-Mediterranean Mythological and Classical Literature.
13. Subscriptions to extensive list of periodicals and newspapers.
14. LMI Literature Sampler, Elementary Edition.
15. Abe Lincoln Grows Up by Carl Sandburg (10 copies).
16. Mythology by Edith Hamilton (10 copies).

Fine Arts

1. Kalmus Score for Surprise Symphony.
2. Recording of the opera "The Magic Flute" (German).
3. Collection of paperbacks about art and famous artists.

Note: The MAL Program also utilizes the district NDEA materials and equipment in mathematics, science, and foreign languages.

EVALUATION



The four participating groups in the MAL Program (as illustrated above, the 4 P's) have helped evaluate the Program throughout the year. Pupils have kept records and maintained much of their own case history folders. Parents have conferred with the MAL Coordinator, and with teachers and administrators. Teachers and administrators have conferred at all levels, made reports, and kept records. The frequent exchange among all of these groups has kept ASSESSMENT in the fore.

Below are some of the evaluation instruments used and shared by all of the groups indicated on the circle above:

1. Standardized achievement tests.
2. Rating scales.
3. Interviews.
4. Anecdotal records.
5. Work samples.
6. Questionnaires.
7. Case history folders.

Question: How effective is the MAL Program in San Rafael?

1. Identified MAL's are accomplishing more than they would if they were unidentified, and if no special program existed for them.

2. Parents of MAL's unanimously claim that the Program is beneficial to their children.

3. Teachers are increasingly enthusiastic about the Program.

4. The majority of MAL's wish to participate in the special activities.

5. The Program tends to upgrade the total school program for all children.

6. The increasingly excellent district achievement record as compared to National and State norms raises the following question: How can we measure the actual amount of MAL Program effect upon the total district achievement record?

7. At least twelve (8% of the total participants) middle grade MAL's with very poor past performance records were positively affected by the MAL Program so that their total school performance was significantly improved. (These cases are called Case Study Examples.)

Note: The evaluation statements about the students are true for approximately 85% of the total participating group in grades 4 - 6. The remaining 15% of the students are highly gifted underachievers and divergent creatives ---- these students are targets for the Case Study Example Group.

The "success" group is slightly smaller at the junior high school level (approximately 80%), while the "non-success" group is slightly larger (approximately 20%).

SUMMARY

Beech

Where my imaginary line
Bends square in woods, an iron spine
And pile of real rocks have been founded.
And off this corner in the wild,
Where these are driven in and piled,
One tree . . .
Has been impressed as Witness Tree
And made commit to memory
My proof of being not unbounded.
Thus truth's established and borne out,
Though circumstanced with dark and doubt ---
Though by a world of doubt surrounded.

Robert Frost

Perhaps Frost's Witness Tree best illustrates why public schools attempt to educate each child according to his individual potential ability. Although Frost's Tree was a wounded tree, an analogy can be drawn to the extent that we in public education are attempting to establish each child as a witness to the dignity and worth of the individual, to self-understanding, and to creative productivity. The implications of the MAL Program, or of any program, go far beyond the present to a future time when the leaders of tomorrow will have to be equipped to overcome mediocrity and live productively in a world of peace.

Robert E. Shore
More Able Learner Coordinator
San Rafael City Schools

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